

Listing and Amendments to the Claims

This listing of claims will replace all previous versions and listings of claims in this application:

1. **(Currently Amended)** A method (~~100~~) for providing bandwidth fairness in wireless networks, comprising:

receiving a set at least one stream of packets (~~46C~~) on an access point (~~20~~) for ~~[[a]]~~ at least one wireless station (~~46C~~);

setting a more fragment bit of the set at least one stream of packets (~~46C~~) when there are successive packets in the at least one stream of packets; and

transmitting the successive packets of the set at least one stream of packets from the access point (~~20~~) to the at least one wireless station (~~46C~~) without back-off.

2. **(Currently Amended)** The method (~~100~~) of claim 1, wherein the step of setting the more fragment bit, comprises setting the more fragment bit in a MAC header accompanying the set at least one stream of packets (~~46C~~) to a value of 1.

3. **(Currently Amended)** The method (~~100~~) of claim 1, wherein the set at least one stream of packets (~~46C~~) comprises a plurality of packets.

4. **(Currently Amended)** The method (~~100~~) of claim 1, wherein the more fragment bit is not set in a last of the set at least one stream of packets (~~46C~~) to be transmitted.

5. **(Currently Amended)** ~~[[A]]~~ The method (~~200~~) as defined in claim 1 for providing bandwidth and airtime fairness in wireless networks, comprising:

receiving a packet (~~34~~) on ~~an~~ the access point (~~20~~) for ~~[[a]]~~ the at least one wireless station (~~22A~~);

calculating an airtime requirement for transmitting the packet (~~34~~) to the at least one wireless station (~~22A~~);

setting a time counter (~~50~~) on the access point (~~20~~) based on the airtime requirement; and

determining whether the packet (~~34~~) can be transmitted before the time counter (~~50~~) expires.

6. **(Currently Amended)** The method ~~(200)~~ of claim 5, further comprising transmitting the packet to the access point.

7. **(Currently Amended)** The method ~~(200)~~ of claim 5, further comprising splitting the packet ~~(34)~~ into a set of fragments ~~(48)~~ if the packet ~~(34)~~ cannot be transmitted before the time counter ~~(50)~~ expires.

8. **(Currently Amended)** The method ~~(200)~~ of claim 7, further comprising transmitting the set of fragments ~~(48)~~ until the time counter ~~(50)~~ expires.

9. **(Currently Amended)** The method ~~(200)~~ of claim 7, wherein the splitting step comprises splitting the packet ~~(34)~~ into equal sub-packets to yield a set of fragments ~~(48)~~.

10. **(Currently Amended)** The method ~~(200)~~ of claim 5, wherein the airtime requirement is calculated based on a size and a transmission rate of the packet.

11. **(Currently Amended)** ~~An~~ The access point ~~(20)~~ as defined in claim 23 for providing airtime and bandwidth fairness in wireless networks, further comprising:

means for calculating ~~(38)~~ an airtime requirement for a packet ~~(34)~~ received on ~~an~~ the access point ~~(20)~~ for ~~[[a]]~~ the at least one wireless station ~~(22A)~~;

means for setting ~~(44)~~ a time counter ~~(50)~~ based on the airtime requirement; and

means for determining ~~(38)~~ whether the packet ~~(34)~~ can be transmitted to the at least one wireless station ~~(22A)~~ before the time counter ~~(50)~~ expires.

12. **(Currently Amended)** The access point ~~(20)~~ of claim 11, further comprising means for communicating ~~(32)~~ the packet ~~(34)~~ if the packet ~~(34)~~ can be transmitted to the at least one wireless station ~~(22A)~~ before the time counter ~~(50)~~ expires.

13. **(Currently Amended)** The access point ~~(20)~~ of claim 11, further comprising means for splitting ~~(40)~~ the packet ~~(34)~~ into a set of fragments ~~(48)~~ if the packet ~~(34)~~ cannot be transmitted to the at least one wireless station ~~(22A)~~ before the time counter ~~(50)~~ expires.

14. **(Currently Amended)** The access point (20) of claim 13, wherein the means for splitting (40) the packet (34) splits the packet (34) into equal sub-packets to yield the set of fragments (48).

15. **(Currently Amended)** The access point (20) of claim 11, the airtime requirement is calculated based on a size and a transmission rate of the packet (34).

16. **(Currently Amended)** The access point (20) of claim 11, wherein the access point (20) is a wireless access point (20) implemented within a wireless local area network.

17. **(Currently Amended)** [[A]] The program product (35) stored on a recordable medium as defined in claim 24, wherein said medium having stored thereon machine readable instructions that, when executed, implement [[a]] the method for providing airtime and bandwidth fairness in wireless networks, which when executed, comprises said method comprising:

program code for calculating (38) an airtime requirement for a packet (34) received on an the access point (20) for [[a]] the at least one wireless station (22A);

program code for setting (44) a time counter (50) based on the airtime requirement; and

program code for determining (38) whether the packet (34) can be transmitted to the at least one wireless station (22A) before the time counter (50) expires.

18. **(Currently Amended)** The program product (35) of claim 17, further comprising program code for communicating (32) the packet (34) if the packet (34) can be transmitted to the at least one wireless station (22A) before the time counter (50) expires.

19. **(Currently Amended)** The program product (35) of claim 17, further comprising program code for splitting (40) the packet (34) into a set of fragments (48) if the packet (34) cannot be transmitted to the at least one wireless station (22A) before the time counter (50) expires.

20. **(Currently Amended)** The program product (35) of claim 19, wherein the program code for splitting (40) the packet (34) splits the packet (34) into equal sub-packets to yield the set of fragments (48).

21. **(Currently Amended)** The program product ~~(35)~~ of claim 17, the airtime requirement is calculated based on a size and a transmission rate of the packet ~~(34)~~.

22. **(Currently Amended)** The program product ~~(35)~~ of claim 17, wherein the program product ~~(35)~~ is implemented on ~~an~~ the access point ~~(20)~~ that is implemented within a wireless local area network.

23. **(New)** An access point for providing bandwidth fairness in wireless networks, comprising:
means for receiving at least one stream of packets for at least one wireless station;
means for setting a more fragment bit of the at least one stream of packets when there are successive packets in the at least one stream of packets; and
means for transmitting the successive packets of the at least one stream of packets from the access point to the at least one wireless station without back-off.

24. **(New)** A program product stored on a recordable medium, said medium having stored thereon machine readable instructions that, when executed, implement a method for providing bandwidth fairness in wireless networks, said method comprising:

receiving at least one stream of packets on an access point for at least one wireless station;

setting a more fragment bit of the at least one stream of packets when there are successive packets in the at least one stream of packets; and

transmitting the successive packets of the at least one stream of packets from the access point to the at least one wireless station without back-off.